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# The Fiscal Impact of the Shift from Equity to Adequacy in School Finance Litigation

Forbis Jordan, Teresa Jordan and Kevin Crehan

## Introduction

The focus of this study is a comparison of the changes in a set of state-level funding variables in state school finance programs for five groups of states with regard to high court decisions rendered during the 1970-1987 period and the 1988-2004 period. The five groups are as follows: (1) pre-1989 plaintiff victory; (2) pre-1989 defendant victory; (3) post-1988 plaintiff victory; post-1988 defendant victory; and (5) states with no decision by the highest court. The beginning date of 1970 was selected because it provided a logical base from which to determine the impact of litigation, preceding the 1973 *Rodriguez* decision of the U.S. Supreme Court<sup>1</sup> and the 1976 *Serrano* decision of the California Supreme Court.<sup>2</sup> With the *Rodriguez* decision, legal challenges to state school finance systems shifted from the federal courts to the state courts, and the original *Serrano* decision was amended to rely on state constitutional provisions after the *Rodriguez* decision. Since *Rodriguez*, school finance litigation has been based on the specific wording of the education, taxation, due process, and equal protection clauses in state constitutions.<sup>3</sup> *Serrano* was the first decision based on state constitutional provisions. The 1989 date was selected as a breakpoint between the two periods because that was the year in which Kentucky's *Rose* decision<sup>4</sup> was rendered, a decision considered to be the first instance in which the ruling in state high courts included the concept of adequacy.<sup>5</sup>

Since 1970, challenges to the constitutionality of state school finance programs have been initiated in 45 states.<sup>6</sup> In states where an opinion was issued by the state's highest court as of May, 2004, plaintiffs have prevailed in 21 states while defendants have prevailed in 17; no high court decision had been issued in 12 states.<sup>7</sup> As the focus of school finance litigation broadened in the 1990s to include adequacy as well as equity, school finance researchers did not appear to be in agreement about the success of litigation in which adequacy was the focus of the complaint. Lukemeyer found that the general pattern was that cases tended to be unsuccessful when adequacy was the primary complaint.<sup>8</sup> However, she did find that in some instances adequacy had been a part of the remedy in equity cases where the plaintiffs were successful. At the same time, Crampton and Thompson,<sup>9</sup>

Augenblick, Sharp, Silverstein, and Palaich;<sup>10</sup> Guthrie;<sup>11</sup> and Verstegen<sup>12</sup> have emphasized that traditional research techniques do not provide the quantity or quality of information required to demonstrate achievement of the adequacy goal.

The findings from studies by Manwaring and Sheffrin<sup>13</sup> and Thompson and Crampton<sup>14</sup> contributed to the organization of the study. Manwaring and Sheffrin used data from 1970 to 1990 to examine the effect of litigation in determining the level of education funding. One of their principal findings was that litigation had a differential effect across states leading to increases in funding in some instances and decreases in others. They also concluded that, as a result of litigation, education has received additional state-level attention in the political process and has benefited from the increased attention. Thompson and Crampton<sup>15</sup> reviewed over 200 studies of states that had undergone school finance reform; they contended that litigation was not a fail-proof strategy to increase revenues for education. In their review, they found that it was difficult to claim a direct linkage between litigation and levels of education funding. Of the 200 articles, they found only 29 that addressed the question of measurable efficacy of litigation. Their analysis of the effects of litigation in eleven states suggests that education funding received greater attention as a result of litigation and that the effects may have been more positive than would have occurred without the pressure of litigation. Thompson and Crampton also noted that Ward<sup>16</sup> had contended that, under our system of governance, politics and the economy often exercise more power than the courts. In their conclusions, they cautioned that litigation had not resulted in remarkable gains in education funding and speculated as to whether or not comparable gains could have been achieved under more amicable circumstances.

## Analysis by Period of Litigation

Various authors have identified *Rose*<sup>17</sup> as a watershed that broadened the focus of school finance litigation from equity to include adequacy of funding.<sup>18</sup> For example, preceding *Rose*, plaintiffs prevailed in only 5 of the 13 high court decisions handed down between 1971 and 1988, and the content of the decisions did not provide much direction for aspiring plaintiffs. However, following the Kentucky decision in 1989, plaintiffs expanded their complaint to include evidence about programmatic and staffing disparities and have been more successful. Of the 25 decisions between 1988 and 2004, plaintiffs have prevailed in 15 instances.

The Kentucky decision often is referred to as the first adequacy case because it was the first case in which the legislative response was to enact comprehensive school reform -- governance, curriculum, assessment, and school finance. Even though this broadened definition of fairness has been reflected in subsequent judicial decisions, it appears that judicial decisions may be easier to obtain than acceptable legislative remedies that meet judicial requirements and are acceptable to society.<sup>19</sup> See Table 1 for a list of states by chronological period of prevailing high court decisions favoring plaintiffs and defendants and a list of "No Decision" states.

Using a set of 1970 and 2000 state input variables including measures of effort and ability, a 2001 measure of equity, and a NAEP 2003 composite score, this study attempted to answer the following research question: Are there observable differences on selected variables among the five groups of states previously described? The variables used represent state average effort, fiscal ability, pupil-teacher ratio, teacher salaries, and per-pupil expenditures. Two other variables--

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**Table 1**  
**States with Prevailing High Court Decisions, May 2004**

<b>1971 – 1988</b>		<b>1989 – 2004</b>		<b>No High Court</b>
<b>States with Plaintiff Victory (6)</b>	<b>States with Defendant Victory (7)</b>	<b>States with Plaintiff Victory (15)</b>	<b>States with Defendant Victory (10)</b>	<b>States with No High Court Decision (12)</b>
Arkansas California New Jersey Washington West Virginia Wyoming	Colorado Georgia Maryland Michigan Oregon Pennsylvania Oklahoma	Arizona Connecticut Idaho Kansas Kentucky Massachusetts Montana North Carolina New Hampshire New York Ohio South Carolina Tennessee Texas Vermont	Alabama Florida Illinois Maine Minnesota North Dakota Nebraska Rhode Island Virginia Wisconsin	Alaska Delaware Hawaii Indiana Iowa Louisiana Mississippi Missouri Nevada New Mexico South Dakota Utah

equity of the state's finance system and composite NAEP scores--were reported for one point in time. Data sources included the National Center for Education Statistics, National Education Association, Bureau of Economic Analysis of the U.S. Department of Commerce, Bureau of Labor Statistics of the U.S. Department of Labor, U.S. Census Bureau, and the 2004 issue "Quality Counts" published by *Education Week*.<sup>20</sup> The data set included state-level base data commonly associated with school expenditures and revenues for the period from 1969-70 to 1999-2000. The Consumer Price Index from the Bureau of Labor Statistics, U.S. Department of Labor, was used to adjust per capita personal income (PCPI), average teacher salary (ATS), and per-pupil expenditure (APPE) data for inflation. Other variables included measures of equity and a normalized composite index of the 2003 NAEP scores by state for 4<sup>th</sup> and 8<sup>th</sup> grade reading and math.<sup>21</sup> These data were normalized to derive a single score for each state.

State-by-state evaluations of the equity of state school finance programs are not routinely conducted; the only current assessment of school finance programs is the annual report, "Quality Counts".<sup>22</sup> Here the equity score for each state was based on the contributions of four variables for the 2001 fiscal year: state equalization effect (50%); wealth neutrality (25%); McLoone Index (12.5%); and coefficient of variation (12.5%). Multiyear comparisons of a state's equity score were not feasible because the components in the calculation process have varied from year-to-year.

Tables are presented for each variable, and means and standard deviations have been calculated for the decision subgroups. Comparisons among the subgroups were made for the following variables for each state:

- %PCPI. Current expenditures for elementary and secondary as a percentage of per capita personal income, a measure of effort.

- %SRS. Percentage of local school revenue for current operation from state sources, a measure of state share.
- APPE. Average per-pupil expenditure, a measure of resources.
- ATS. Average salary for classroom teachers, a measure of teacher pay.
- PTR. Pupil-teacher ratio, a measure of staffing pattern.
- PCPI. Per capita personal income, a measure of fiscal ability.
- Composite NAEP scores for 2003, a measure of student test performance.
- 2001 Equity.<sup>23</sup>

### Findings

Tables 2-7 contain means and standard deviations for 1970 and 2000 variables, and the change in means and the standard deviations between 1970 and 2000 for the following state-level variables: %PCPI, %SRS, APPE, ATS, PTR, and PCPI. Overall fiscal effort and degree of reliance on state revenue are reflected in the tables based on the first two variables, %PCPI (Table 2) and %SRS (Table 3). The level of funding and staffing practices are shown in the tables as average per-pupil expenditures (Table 4), average teacher salary (Table 5), and pupil-teacher ratio variables (Table 6). The fiscal ability variable (PCPI) is shown in Table 7. Tables 8-10 contain information on the relative equity of the state school finance system and the composite NAEP scores by the state grouping. The number of states in each group is shown in parenthesis. For comparison purposes, "Z Scores" were calculated from the means for each variable; the results are contained in Table 10.

Table 2 contains the means and standard deviations for the effort variable -- the percent of per capita personal income spent for K-12 public education in the state (%PCPI). Assuming that %PCPI is a valid measure of effort, the data in Table 2 indicate that the mean %PCPI declined for all groups between 1970 and 2000. Further analysis of the

**Table 2**

**Group Mean and Standard Deviation for Current Expenditures for Elementary and Secondary Education as a Percentage of Per Capita Personal Income (%PCPI) for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 – 2000 Change</b>	
	<b>Mean (%)</b>	<b>StDev (%)</b>	<b>Mean (%)</b>	<b>StDev (%)</b>	<b>Mean (%)</b>	<b>StDev (%)</b>
All States (50)	4.26	0.56	4.05	0.62	-0.2138	0.5413
PL Pre 1989 (6)	4.48	0.56	4.23	0.76	-0.2533	0.7424
DF Pre 1989 (7)	4.20	0.46	3.92	0.52	-0.2771	0.4802
PL Post 1988 (15)	4.07	0.50	3.98	0.54	-0.0840	0.4015
DF Post 1988 (10)	4.21	0.52	3.98	0.53	-0.2280	0.5769
No Decision (12)	4.47	0.67	4.16	0.79	-0.3075	0.6445

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 3**

**Mean and Standard Deviation for Percentage State Revenue Share (%SRS) for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 – 2000 Change</b>	
	<b>Mean (%)</b>	<b>StDev (%)</b>	<b>Mean (%)</b>	<b>StDev (%)</b>	<b>Mean (%)</b>	<b>StDev (%)</b>
All States (50)	41.25	15.84	52.96	12.61	11.72	13.70
PL Pre 1989 (6)	39.73	12.41	56.42	10.18	16.68	7.44
DF Pre 1989 (7)	39.60	12.60	51.66	13.71	12.06	17.80
PL Post 1988 (15)	38.79	15.89	53.09	10.36	14.29	15.75
DF Post 1988 (10)	37.89	13.65	48.89	12.33	11.00	13.57
No Decision (12)	48.83	20.08	55.24	16.43	6.41	10.85

Note: State Revenue Share equals percentage of local school revenue for current operation from state sources. PL = Plaintiff Victory; DF = Defendant Victory.

**Table 4**

**Group Mean and Standard Deviation for Average Per-Pupil Expenditure (APPE) for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 – 2000 Change</b>	
	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>
All States (50)	3,414	708	7,302	1,445	3,889	966
PL Pre 1989 (6)	3,619	734	7,571	1,834	3,953	1,441
DF Pre 1989 (7)	3,525	663	7,578	1,128	4,053	612
PL Post 1988 (15)	3,324	874	7,438	1,647	4,115	996
DF Post 1988 (10)	3,412	543	7,385	1,218	3,972	896
No Decision (12)	3,360	700	6,769	1,409	3,409	863

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 5**  
**Group Mean and Standard Deviation for Average Teacher Salary (ATS)**  
**for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 - 2000 Change</b>	
	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>
All States (50)	36,142	4,982	39,141	5,922	3,000	3,472
PL Pre 1989 (6)	37,620	6,219	40,570	7,867	2,950	4,965
DF Pre 1989 (7)	37,283	4,916	41,831	6,123	4,548	3,304
PL Post 1988 (15)	35,179	4,390	39,330	5,898	4,151	3,418
DF Post 1988 (10)	35,820	4,372	38,530	5,405	2,710	2,954
No Decision (12)	36,207	6,021	37,132	5,382	925	2,533

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 6**  
**Group Mean and Standard Deviation for Pupil-Teacher Ratio (PTR)**  
**for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 - 2000 Change</b>	
	<b>Mean</b>	<b>StDev</b>	<b>Mean</b>	<b>StDev</b>	<b>Mean</b>	<b>StDev</b>
All States (50)	22.21	1.87	15.71	2.14	-6.50	1.74
PL Pre 1989 (6)	22.33	2.25	15.98	3.31	-6.35	2.38
DF Pre 1989 (7)	22.74	1.08	16.33	1.33	-6.09	1.78
PL Post 1988 (15)	21.91	1.95	15.51	2.00	-6.40	1.69
DF Post 1988 (10)	21.54	1.64	14.40	1.86	-6.98	1.95
No Decision (12)	22.78	2.13	16.22	2.21	-6.56	1.48

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 7**  
**Group Mean and Standard Deviation for Per Capita Personal Income (PCPI)**  
**for 1970 and 2000 and Change from 1970 to 2000**

	<b>1970</b>		<b>2000</b>		<b>1970 - 2000 Change</b>	
	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>	<b>Mean (\$)</b>	<b>StDev (\$)</b>
All States (50)	17,193	2,840	28,387	4,399	11,194	2,909
PL Pre 1989 (6)	17,560	3,715	28,911	6,261	11,350	2,928
DF Pre 1989 (7)	17,569	1,818	29,462	3,377	11,893	2,218
PL Post 1988 (15)	16,955	2,682	28,855	5,538	11,900	3,474
DF Post 1988 (10)	16,840	2,095	29,147	2,582	12,307	2,476
No Decision (12)	17,382	3,837	26,280	3,335	8,898	1,692

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 8**  
**Group Mean and Standard Deviation for Composite NAEP Scores for 2003**

	<i>Mean for Composite NAEP Score</i>	<i>Standard Deviation</i>
All States (50)	101.4	9.29
PL Pre 1989 (6)	100.0	9.67
DF Pre 1989 (7)	101.9	5.27
PL Post 1988 (15)	104.5	8.75
DF Post 1988 (10)	104.0	8.45
No Decision (12)	95.9	10.82

Note: PL = Plaintiff Victory; DF = Defendant Victory.

**Table 9**  
**Group Mean and Standard Deviation for Equity Scores for 2001**

	<i>Mean</i>	<i>Standard Deviation</i>
All States (50)	73.3	8.36
PL Pre 1989 (6)	74.8	6.88
DF Pre 1989 (7)	71.6	8.34
PL Post 1988 (15)	70.6	6.40
DF Post 1988 (10)	69.7	8.59
No Decision (12)	79.8	8.24

Note: PL = Plaintiff Victory; DF = Defendant Victory.

data revealed that 35 of the 50 states had a decline in %PCPI between 1970 and 2000, with an increase for the remaining 15 states. Of the nine states showing the greatest increase between the two dates, six were states in which the plaintiffs had prevailed.

The highest mean, or the highest effort, in 1970 and also in 2000 was in the group of states in which the state's high court had issued a decision favoring the plaintiffs prior to 1989. The smallest decline was in the mean for this group also. The largest decline was in states with no high court decision. The smallest decline was in states with either a plaintiff or defendant victors after 1988, suggesting that the shift to adequacy may have had a positive impact on funding, i.e., a smaller reduction when compared to the means for the other groups of states. This latter condition may be understated because acceptable legislative remedies have not yet been attained in some states where the plaintiffs prevailed.

Data in Table 3 show the increased reliance on state revenues as a source of funds for schools. The percentage of K-12 funding from state revenue sources increased from 16.5% in 1929-30<sup>24</sup> to 41.2 % in 1969-70 and further to 53.0% in 1999-2000. As the concept that providing funds for K-12 education is a state responsibility has been established by the courts, the percentage from state sources has increased for a variety of reasons. When local sources provided over 80% of the funding for schools, policymakers were confronted with large differences in taxable wealth among school districts and the resulting wide disparities in educational expenditures per pupil; this led to the enactment of state equalization program that allocated funds in an inverse relation to wealth. Escalating costs of public services, inflation

of property values, and judicial decisions requiring greater equalization in state funding formulas have contributed to the enactment of tax and expenditure limitations in 22 states.<sup>25</sup> They are quite different in the details, but the intent is the same. Alternatives include freezing or limiting the growth in governmental spending and/or tax rates or requiring a super-majority voter approval for tax increases.<sup>26</sup>

As shown in Table 3, in 1970, the range in mean state revenue share among the five groups ranged from 37.89% to 39.73%; in 2000, the range was from 48.89% in states with a defendant victory after 1988 to 56.42% in states with a plaintiff victory before 1989. The mean percentage of revenues from state sources for all groups increased between 1970 and 2000. The greatest increase was in the mean for states with a plaintiff victory before 1989, with a 16.7% change; the smallest increase was in states with no high court decisions, with a 6.41% change. These data provide further credence to the contention that "any" litigation results in increased funding for schools.

Table 4 contains the mean and standard deviation for average per-pupil expenditures (APPE) for 1970 and 2000 and the change in APPE between 1970 and 2000. All APPE data have been adjusted for inflation using 2000 as the base of 1.00. The highest mean in 1970 was \$3,619 for states with a plaintiff victory before 1989, and the lowest was \$3,324 for states with a plaintiff victory after 1988. Of the nine states with an APPE in 2000 that was greater than the mean plus 1.0 standard deviation, five were states in which the plaintiffs had prevailed, two were states in which the defendants had prevailed, and two were "No Decision" states.



**Table 10**  
**Z Scores for Means for Multiyear and Single Point Variables**

	<b>Pre 1989</b>		<b>Post 1988</b>		<b>No Decision</b>
<b>Variable</b>	<b>States with Plaintiff Victory (6)</b>	<b>States with Defendant Victory (7)</b>	<b>States with Plaintiff Victory (15)</b>	<b>States with Defendant Victory (10)</b>	<b>States with No High Court Decision (12)</b>
<b>Multiyear Variable</b>					
% PCPI	49.3	48.8	52.4	49.7	48.3
% SRS	53.6	50.2	51.9	49.5	46.1
APPE	50.7	51.7	52.3	50.9	45.0
ATS	49.9	54.5	53.3	49.2	44.0
PTR	50.9	52.4	50.6	47.3	49.7
PCPI	50.5	52.4	52.4	53.8	42.1
<b>Single Point Variables</b>					
Equity	51.9	48.0	46.8	45.7	57.8
Composite NAEP	48.5	50.5	53.3	52.8	44.0

Note: %PCPI = Current expenditures for elementary and secondary as a percentage of per capita personal income (measure of effort); %SRS = Percentage of local school revenue for current operation from state sources (state share); APPE = Average per pupil expenditure (resources); ATS = Average salary for classroom teachers (teacher pay); PTR = Pupil-teacher ratio (staffing pattern); and PCPI = Per capita personal income (measure of fiscal ability).

The range among the means in 1970 was less than \$300 per pupil, or 8.8%; the range in 2000 was just over \$800 or 12.0%. The "Pre 1989" groups had the highest mean in 2000, i.e., \$7,578 for states with a defendant victory and \$7,571 for states with a plaintiff victory. This pattern of gains for both plaintiffs and defendants supports the contention of Manwaring and Sheffrin<sup>27</sup> that positive changes occur irrespective of which party is perceived to be the winner in the litigation. The effects of the absence of litigation also are illustrated in the lack of progress for the "No Decision" group; this group had the second lowest APPE mean in 1970, the lowest mean in 2000, and the least gain in means between 1970 and 2000.

The mean and standard deviation for average teacher salary (ATS) for 1970 and 2000 and the change between 1970 and 2000 are displayed in Table 5; data were adjusted for inflation using 2000 as the base of 1.00. The highest mean in 1970 was \$37,620 for states with a plaintiff victory before 1989, and the lowest was \$35,179 for states with a plaintiff victory after 1989. The range among the means in 1970 was just under \$2,500 per pupil, or 7.1%; the range in 2000 was just under \$4,700 or 12.7%. The highest mean in 2000 was \$41,831 for states with a defendant victory before 1989, and the second highest was \$40,570 for states with a plaintiff victory before 1989. This pattern of gains for both plaintiffs and defendants supports the contention of Manwaring and Sheffrin<sup>28</sup> that positive changes occur irrespective of which party is perceived to be the winner of the litigation. The merits of litigation also are illustrated in the pattern for the "No Decision" group; this group had the third highest mean in 1970, the lowest mean in 2000, and the smallest gain in means between 1970 and

2000, i.e., \$925 compared with \$2,710 for states with a defendant victory after 1988.

Data for the 1970-2000 period for pupil-teacher ratio (PTR) are shown in Table 6. The 1970 range in the means was from 21.54:1 to 22.78:1. The 2000 range was from 16.33:1 to 14.40:1. In 1970, pupil-teacher ratios were greater for "Pre 1989" than those for the "Post 1988" groups, and they also were greater in 2000. Differences in change from 1970 to 2000 ranged from a reduction of 6.98 to 6.09 pupils per teacher. The "No Decision" states did not fare well on this variable. Among the five groups, this group of states ranked last in 1970, with the largest pupil-teacher ratio of 22.78:1. In 2000, they ranked fourth out of the five groups at 16.22:1, slightly above states with a defendant victory before 1989. Their reduction in pupil-teacher ratio by 6.56 students between 1970 and 2000 ranked them second among the five groups, behind states with defendant victories after 1988, who reduced average pupil-teacher ratio by 6.98 students. The data suggest that the changes between 1970 and 2000 may have been attributable to variables other than those in this study; examples of the latter include legislatively mandated class size reduction and staffing changes to provide programs for special needs youth.

Table 7 contains the inflation-adjusted mean and standard deviation for per capita personal income for 1970 and 2000 and the change between 1970 and 2000. The highest mean in 1970 was \$17,569 for states with a defendant victory before 1989, and the lowest was \$16,840 for states with a defendant victory after 1988. The range among the means in 1970 was just under \$724 per pupil, or 4.3%; the range in 2000 was almost \$3,200 or 12.1%. The highest mean in 2000 was \$29,462 for

states with a defendant victory before 1989; and the second highest was \$29,147 for states with a defendant victory after 1988. The lowest was \$26,280 for the “No Decision” group. The reduced relative fiscal capacity attributable to the low rate of growth in the mean PCPI for this group may explain its low ranking in the 2000 and the “change” data for the %PCPI, APPE, and ATS. The “No Decision” group had the third highest mean in 1970, the lowest mean in 2000, and the least gain in means between 1970 and 2000, i.e., \$8,898 compared with \$11,900 for states with a defendant victory after 1988.

Data for 2003 reported in Table 8 represent the first time that NAEP scores have been available for all states. The highest mean composite NAEP scores were in states with a high court decision after 1988. The lowest mean NAEP score and the largest standard deviation were in “No Decision” states. As shown in Table 7, this group had the lowest mean per capita personal income in 2000 and the lowest mean increase for the 1970-2000 period.

Data in Table 9 indicate that the highest mean equity score was in the “No Decision” states – suggesting that this group had the most equitable school finance programs. Of the nine states with equity scores above 80, five were in this group. The lowest mean equity score, i.e., the least equitable school finance program, was found in states with a defendant victory after 1988, and this group also had the largest standard deviation. This suggests that the school finance programs in this group ranked low in equity and high in diversity. As a group, states with high court decisions before 1989 ranked higher than “Post 1988” states; however, as discussed earlier, school finance reforms may not have been enacted in the “Post 1988” states. A detailed review of the equity scores for each state revealed that eight of the twelve “No Decision” states ranked among the top 16 states on the composite equity measure.

Because of the differences in type of data, “Z Scores” with a mean of 50 and a standard deviation of 10 are shown in Table 10. A score of over 50 indicates that the group was above the average for all states for that variable; a score of less than 50 indicates that the group’s score was below the average for all states on that variable. The pattern for states with a plaintiff victory before 1989 indicates that the mean Z Scores were between 49.3 and 53.6 for the multiyear variables while the range in mean Z Scores for states with a defendant victory before 1989 was 48.8 to 54.5. For states with a plaintiff victory after 1988, all of the mean Z scores for the multiyear variables were above 50, but only two of the scores for states with defendant victories after 1988 were above 50. The Z Score for effort (%PCPI) was below 50 for all groups of states except those with plaintiff victories after 1988. For states with a defendant victory after 1988, the mean Z Score was over 50 for three variables: APPE, PCPI, and the composite NAEP score. All of the mean Z Scores for the multiyear variables for the “No Decision” group were below 50. This pattern is a further illustration of the lack of progress on the variables used in this study in the “No Decision” states over the 30-year period. The Z Score patterns for states with plaintiff victories after 1988 provide evidence that on the multiyear variables this group fared better than the other groups, benefiting most from being involved in litigation.

## Summary

Since 1970, the constitutionality of the state’s school finance system has been challenged in 45 states. In 38 of those states, the challenge has reached the highest state court, and the court has issued an opinion. Rulings in 21 states have been in favor of the

plaintiffs; rulings have favored the defendants in 17 states. The original complaints focused on the inequities of the state system. Starting with the Kentucky decision in 1989, complaints were broadened to include both equity and adequacy as the focal points. Since that decision, high court rulings have been issued in 25 states, and rulings have been in favor of the plaintiffs in 15 of those states.

Using a set of selected variables, the purpose of this study was to determine which of the following groups benefited most over the 30-year period: states with pre-Kentucky or post-Kentucky decisions for the plaintiffs (pre-1989); states with pre-Kentucky or post-Kentucky decisions for the defendants (post-1988); or states no decision from their respective high courts. In this exploratory effort, the focus was on the changes in six variables from 1970 and 2000. The findings suggest the following detailed responses to the research question: Are there observable differences on selected variables among the five groups of states?

- Among the five groups of states, greatest gains in the mean had been made in states with plaintiff victories after 1988 or those states in which the high court decision came after the Kentucky decision. In contrast to the pattern for the “No Decision” states, the means for states with plaintiff victories after 1988 states showed smallest decline in effort; greatest gains in average per-pupil expenditure and average teacher salary; highest NAEP scores; and scores above the mean on each of the six multiyear variables. These findings are consistent with the contentions of Manwaring and Sheffrin.<sup>29</sup>

- Irrespective of whether the plaintiffs or the defendants prevailed, state school finance programs appeared to benefit from litigation challenging the constitutionality of the state system. Comparable increases in funding for schools had not been made in those states in which there had been no high court decision. The “No Decision” states ranked last on means for average per-pupil expenditure, average teacher salary, and per capita personal income. Rather than their ranking being attributable to the lack of high court decision, the low ranking in ability may provide a partial explanation of the low ranking on these variables. However, the greatest reduction in effort between 1970 and 2000 was found in the “No Decision” states. This pattern is consistent with the findings of Manwaring and Sheffrin that school finance litigation results in positive reforms in state school finance systems.<sup>30</sup>

- For all groups of states, fiscal effort for elementary and secondary education, expressed as a percent of per capita personal income, declined between 1970 and 2000. However, the mean average per-pupil expenditure and mean average teacher salary increased at a rate greater than the increase in the consumer price index, and pupil-teacher ratio declined across all groups. The mean decline for all states was 22.2:1 in 1970 to 15.7:1 in 2000.

- Over the 30 year period, the mean share of per-pupil expenditures from state sources increased from 41.25% to 53.0%; this may be attributable to the combined effect of voter resistance to the property tax and the efforts of state legislatures to seek greater equity in state school finance programs. Given the range in property values per students in most states, greater fiscal equity can often be achieved by a reduction in the degree of local school district reliance on local taxes and a shift to the broader tax base of the entire state. The local taxpayer is provided with some relief, but some of that relief may be lost if the reduction in local taxes is offset by an increase in state taxes.



- Given the time required to design and gain consensus for a satisfactory legislative response to a court decision, it is premature to make generalizations about the effect of judicial decisions favoring plaintiffs that were made after 1988. For example, as of May 2004, acceptable legislative solutions had not been enacted in several of these states, including Kansas, Montana, New York, Ohio, and South Carolina. At times, the wheels of justice move slowly; the West Virginia Legislature took over 20 years to enact an acceptable legislative solution.<sup>31</sup>

### Conclusions and Generalizations

Five major conclusions and generalizations are drawn from findings of this study. First, even though average per-pupil expenditures and average teacher salaries increased at a rate greater than inflation over the 1970-2000 period, data on fiscal effort, as a percent of a state's personal income, showed a slight decline across all subgroups during the 1970-2000 period. The decline was greatest in states with no high court decision. Secondly, pupil-teacher ratios experienced a consistently favorable decline across all groups of states over the 30-year period. This may be a partial explanation of why average teachers salary did not increase as much as average per-pupil expenditures. Third, in states with high court decisions, the percentage of school revenues from state tax sources increased over the 30-year period. Fourth, when high court decisions were classified as to whether the plaintiff or the defendant was favored in the court's ruling, plaintiffs have been more successful since 1988 when the focus of their complaint was broadened to include both adequacy and equity. Finally, in states that have had high court rulings on challenges to the state's system for financing schools, irrespective of whether the decisions favored the defendants or the plaintiffs, funding for schools adjusted for inflation increased over the 30-year period at a rate greater than in the "No Decision" states.

### Recommendations

This was a preliminary, exploratory study that placed states into gross categories, and the analysis of the differences among those categories was based on a limited set of common variables. Opportunities for additional research include individual case studies of state responses or a series of case studies across states using a common research design.<sup>32</sup> The focus of additional research might include the following:

- The characteristics of the "No Decision" states and how those characteristics might have affected state action;
- Mitigating variables in a state that affected the legislative response to the high court decision, e.g., changes in the economy of the state or changes in political composition of the state's high court, the state legislature, or the political party of the governor;
- Further cross-state analyses using a more extensive set of state-level economic, demographic, and/or socioeconomic variables;
- The impact of shifting social service priorities on state budgets;
- Types and linkages among enacted school finance, accountability, and governance reforms;
- Identifiable conditions and/or intervening events associated with the period of time between the date of a high court decision and the enactment of acceptable school finance reform legislation.

### Endnotes

<sup>1</sup> *San Antonio v. Rodriguez*, 411 U.S. 1 (1973).

<sup>2</sup> *Serrano v. Priest*, 557 P.2d 929 Cal. (1976).

<sup>3</sup> Kern Alexander and Richard G. Salmon, *Public School Finance* (Needham Heights, Massachusetts: Allyn & Bacon, 1995).

<sup>4</sup> *Rose v. Council for Better Education, Inc.*, 790 S.W. 2d 186 (Ky. 1989).

<sup>5</sup> Helen F. Ladd and Janet S. Hansen, ed. *Making Money Matter: Financing America's Schools* (Washington, D.C.: National Academy Press, 1999), 107; James W. Guthrie, "Twenty-First Century Education Finance: Equity, Adequacy, and the Emerging Challenge of Linking Resources to Performance," in *Money, Politics and Law: Intersections and Conflicts in the Provision of Educational Opportunity*, ed. Karen DeMoss and Kenneth Wong (Larchmont, New York: Eye on Education, 2004), 1-16.

<sup>6</sup> In this discussion, states have been classified as "plaintiff victory", "defendant victory", and "no decision" on the basis of the most recent prevailing decision of the state's highest court.

<sup>7</sup> Molly Hunter, *Finance Litigation* (New York: Campaign for Fiscal Equity, March 28, 2004); Robert Bennett, *An Analysis of Nevada's Public School Funding System*, (Ph.D. diss., University of Nevada, Las Vegas, 2003); Anna Lukemeyer, *Education Finance Equity: Judicial Treatment of Key Issues and Impact of That Treatment on Reform*, (Ph.D. diss., Syracuse University, 1999).

<sup>8</sup> Lukemeyer, *Education Finance Equity*.

<sup>9</sup> Faith E. Crampton and David C. Thompson, "When the Legislative Process Fails: The Politics of Litigation in School Infrastructure Funding Equity," in DeMoss and Wong, 69-88.

<sup>10</sup> John Augenblick, Jennifer A. Sharp, Justin R. Silverstein, and Robert M. Palaich, "Politics and the Meaning of Adequacy: States Work to Integrate the Concept into K to 12 School Finance," in DeMoss and Wong, 17-36.

<sup>11</sup> Guthrie, "Twenty-First Century Education Finance."

<sup>12</sup> Deborah A. Verstegen, "Financing the New Adequacy: Towards New Models of State Education Finance Systems that Support Standards Based Reform," *Journal of Education Finance* 27 (Winter 2002): 749-782.

<sup>13</sup> Robert Manwaring and Steven M. Sheffrin, "Litigation, School Finance Reform, and Aggregate Educational Spending," *International Tax and Public Finance* 4 (May 1997): 107-127.

<sup>14</sup> David C. Thompson and Faith E. Crampton, "The Impact of School Finance Litigation: A Long View," *Journal of Education Finance* 27 (Fall 2002): 133-172.

<sup>15</sup> *Ibid.*

<sup>16</sup> James G. Ward, "The Political Ecology of Reform: American Public School Finance in the 1970s and 1980s," *Journal of Education Finance* 14 (Fall 1988): 181-199.

<sup>17</sup> *Rose v. Council for Better Education, Inc.*, 790 S.W. 2d 186 (Ky. 1989).

<sup>18</sup> Ladd and Hansen, 107.

<sup>19</sup> Crampton and Thompson, "When the Legislative Process Fails."

<sup>20</sup> Ronald Skinner and Lisa Staesina, "State of the States," *Education Week* 23 (8 January 2004) 120-121.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Tom Snyder and Charlene Hoffman, *Digest of Education Statistics*, NCES 2001-034 (Washington, D.C.: U.S. Department of Education, 2001), Table 38.

<sup>25</sup> William F. Blankenau and Mark L. Skidmore, "School Finance Litigation, Tax and Expenditure Limitations, and Education Spending," *Contemporary Economic Policy* 22 (January 2004): 127-143.

<sup>26</sup> Ibid.

<sup>27</sup> Manwaring and Sheffrin, "Litigation, School Finance Reform, and Aggregate Educational Spending."

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> Crampton and Thompson, "When the Legislative Process Fails."

<sup>32</sup> Ibid.; Karen DeMoss, "Political Contexts and Education Finance Legislation: Toward a Methodology for Comparative Fiscal Analysis," in DeMoss and Wong, 47-68.